

Research Rationale

With the largest economy in Africa, only about 60% of Nigeria's population have access to electricity. In 2018, only about 32% of electricity generated was available for consumption (Edomah 2020, Lin, Ankrah 2019).

Research Aim

The aim of this research is to conduct a critical examination of the Nigerian electricity sector to determine the impacts of policies in electricity generation, supply and storage between 2001 and 2020

Research objectives

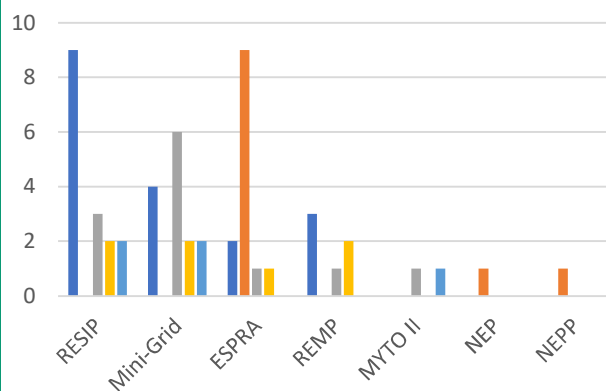
- To conduct a critical review of the electricity generation, supply and storage in Nigeria between 2001 to 2020
- To evaluate the impact of policies on the Nigerian electricity sector
- To investigate possible barriers to the successful formulation and implementation of the policies
- To develop a deterministic model to simulate the behaviour of the system under different forecast scenarios based on current trends and policies, and evaluate the technical feasibility of the system

Methods

Research design	Research strategy	Techniques and procedures
<p>Mixed method</p> <p>The use of qualitative and quantitative methods to enable reliable and relevant data collection to address the research problem</p>	<p>Survey Supports exploratory nature of the research aim and will allow the collection of standardised data</p> <p>Case Study Looks at real life cases and studies people, processes, and organisation within their natural environment to arrive at a definite conclusion</p>	<p>Data collection Literature review Questionnaire (JISC) Interviews</p> <p>Data analysis The qualitative data will be analysed with NVivo, and the quantitative data will be analysed with SPSS.</p> <p>MATLAB will be used to develop a deterministic model</p>

Discussion

Policy Success Factors

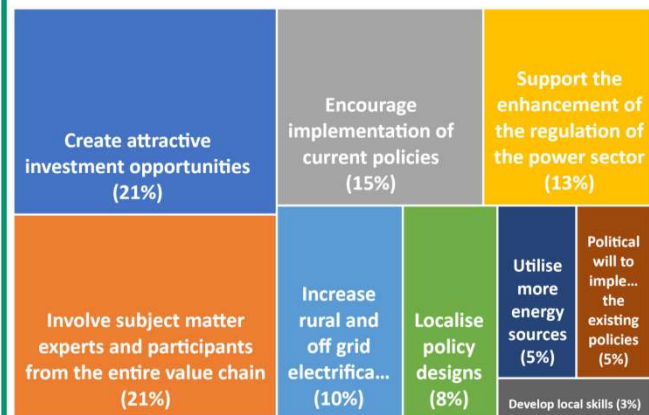


- 1 : Increase rural and off grid electrification
- 2 : Provide guidelines for a competitive Electricity supply system
- 3 : Create attractive investment opportunities
- 4 : Encourage use of more energy sources
- 5 : Increase participation from the entire value chain

Response ID	Policy impacts				
	Increased Investment	Improved Infrastructure	Enhanced Energy Mix	Improved Human Resources	
MINI GRID 2016	46	42	45	32	165
RESIP 2016	46	44	40	28	158
EPSRA 2005	41	45	32	24	142
REMP 2005	32	22	38	21	113
REPG 2006	31	26	32	21	110
NEPP 2001	37	34	21	14	106
MYTO II 2012	40	30	16	17	103
MYTO I 2008	36	27	16	16	95
NEP 2003	27	29	20	12	88
	92	86	85	60	

Recommendation

Future Electricity policies can be designed to improve Electricity generation and supply in Nigeria by doing the following:



References

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